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November 5, 1993

93-235

VIA FEDERAL EXPRESS

Office of the Secretary
Federal Communications Commission
1919 M. Street, N.W.
Washington, D.C. 20554

Re: Amendment of Parts 15 and 90 of the Commission's Rules to Provide Additional Frequencies for Cordless Telephones

Dear Mr. Secretary:

Pursuant to the Notice of Inquiry issued September 17, 1993, enclosed please find an original and nine copies of the Comments of Zenith Electronics Corporation on the above-captioned matter.

Sincerely,

Stephen K. Weber

Stephen K. Weber

SKW/bjp
encl.

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Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, DC 20554

In the Matter of

Amendment of Parts 15 and 90 of the Commission's Rule to Provide Additional Frequencies for Cordless Telephones	))))	ET Docket No. 93-235

COMMENTS OF ZENITH ELECTRONICS CORPORATION

Zenith Electronics Corporation, a manufacturer of color televisions and cable equipment, and a frequent participant in matters before the Commission, submits the following comments with respect to the matter referenced above.

1. Zenith believes that significant potential interference concerns are presented by the proposal to provide additional frequencies for operation of cordless telephones.

   Existing cordless telephone useage is located at the very outer edge of the area of picture information in the IF band. The proposed telephone frequencies are located directly in the middle of the picture information area of the television IF. We understand that historically the Commission has had a policy of minimizing such conflicting uses in that area.

Current TVs are 10 to 100 times more susceptible to interference from devices operating in these frequencies compared to those operating in existing frequencies.

In contrast to other existing uses in this part of the IF spectrum, cordless telephones are mass-produced, mass-distributed items over which the Commission can exercise little enforcement control. Once released to the public, they will be used widely, frequently and for substantial periods of time.

The potential for virtually constant interference, especially in multifamily housing where multiple interfering devices may often be just a few feet away from the television in an adjacent unit, is high. Given an installed base of approximately 200 million televisions in the U.S. — and even assuming that the problem may be lessened in single family dwellings (interference will only be from one's own cordless phone) — up to tens of millions of existing TVs could be affected. The Commission will at that point be in no position to provide remedies.

As a useful reference, we suggest review of the matter concerning interference problems experienced with mobile radio service in the late 1970s and early 1980s. See the Interman Procedures adopted in 46 Federal Register No. 76, April 21, 1981, at 22757. As this

rulemaking clearly points out, control over use of frequencies within the picture/sound portion of the IF is essential.

2. While such concerns are significant in and of themselves with respect to interference with conventional analog television signals and equipment, they become magnified by at least two of the Commission's existing regulatory efforts, the one to establish a standard for High Definition Television and the mandate in the Cable bill to improve compatibility between cable systems and consumer electronics equipment.

Proposals for improving the compatibility between cable systems and equipment and consumer electronics equipment (particularly TVs and VCRs) have focussed on an IF interface transferring and/or receiving IF frequencies. This provides additional opportunities for interfering signal ingress.

In the case of Advanced Television (and digitally compressed NTSC), there is insufficient information available to provide any guidance one way or the other. Digital signals and digital signal processing in theory offer certain advantages in interfering signal rejection compared to an analog environment. But theory and practice are entirely different matters. With high definition

television offering the American public a quantum leap in performance of a television picture, it seems ironic to allow in a separate proceeding for transmissions which could interfere with the picture information being transmitted. More tests need to be done on HDTV operation to evaluate the ramifications of this proposal.

For the reasons stated above, Zenith believes that no final Rule granting the additional frequencies for cordless telephone use should be granted until the issues raised can be thoroughly analyzed.

Respectfully submitted,

Stephen Sigman
VP Consumer Affairs
Zenith Electronics Corporation
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Glenview, IL 60025